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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,829	09/05/2003	Hidehiko Sekizawa	S1459.70062US00	8415

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EXAMINER

CHANG, AUDREY Y

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/656,829	<b>Applicant(s)</b> SEKIZAWA ET AL.	
	<b>Examiner</b> Audrey Y. Chang	<b>Art Unit</b> 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Remark*

- This Office Action in response to applicant's response filed on November 22, 2004, which has been entered into the file.
- No amendment to the claims has been filed.
- Claims 1-9 remain pending in this application.

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph**, as being incomplete for omitting essential *structural cooperative relationships of elements*, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the polarized light separation means, the first and second polarization direction changing means. Claims 1 and 5 recite that "the second polarization direction changing means adhered to a *second face opposite* to the first face of the polarized light separation means" which makes the polarizing eyeglass device NOT workable. If the polarization direction changing means is placed **after** the light passes through the polarized light separation means (which generally is a polarizer), it really *contributes no effect* to the viewing selection. It is known that the polarization direction changing means is provided to change the direction of certain polarized light to be aligned with the polarized light selection means in order for the selected light to pass through to the observer. If the polarized light has *already* passed through the polarized light separation means, what is the point of changing its polarization direction afterwards? The scopes of the claims particularly concerning the second polarization direction

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changing means and its logical cooperation with respect to other elements in the device are not clear and confusing.

The specification and the claims also fail to teach how could the reversing of the first and second polarization direction changing means *leftwardly* and *rightwardly* or *forwardly* and *backwardly* will make the device operable. Change order and location of the polarized light separating means and the polarization direction changing means, will change the polarization states of the image light which may make the eyeglasses not workable.

**Clarifications are required.**

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 3-4, 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to PCT publication by Rosencwaig (WO 95/00872).**

Rosencwaig teaches a *polarizing eyeglasses* having a pair of lenses (140, and 146, Figure 4), that is used in *stereoscopic vision system* having an *image display screen* (130) that is composed of plurality of pixels (126 and 128) that alternatively displaying parallax image information for right eye (pixels 126) and left eye (pixels 128) respectively. Rosencwaig teaches that the stereoscopic vision system further comprises a *polarizing plate* (132) placed in front of the display screen and a *birefringent retarder* (134) serves as the *phase difference plate* placed in front of the polarizing plate at the *positions* corresponding to the pixels element of (126), that are the pixel elements for displaying image information intended only for one eye, (such as right eye). The birefringent retarder has the function of *rotating* or *changing* the

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polarization direction of the image light from pixel elements (126). Rosencwaig teaches that the polarizing eyeglass is worn by the observer to enable stereoscopic viewing, (which means that only right eye image light reaches right eye and only left eye image light reaches left eye). The polarizing eyeglasses comprises two lenses (140 and 146) that includes a *polarizer* (144 and 148) serves as the *polarized light separating means* that will only allow image light having the corrected polarization state to pass. The polarizing eyeglasses further comprises a *birefringent retarder* (142), placed at the first face of the polarized light separating means, serves as the *first polarization direction changing means* to change the polarization direction of the image light intended for the left eye so that the image light has the same polarization direction as compared to the polarized light separating means, (please see Figure 4, the abstract and pages 7-9). The polarizing eyeglass therefore allows only the right eye image light to reach the right eye and the left eye image light to reach left eye.

This reference has met all the limitations of the claims with the exception that it does not teach explicitly to include a second polarization direction changing means that is placed at *opposite face* of the polarized light separating means. However the claims **fail** to provide logical relationship as how does the second polarization direction changing means cooperate with other elements in the claims to make the device operable. That is to say the scopes concerning this element is not clear and is indefinite. This therefore makes impossible for the examiner to address this feature. Since the second polarization direction changing means DOES NOT effect the function of the polarizing eyeglasses in viewing the stereoscopic vision, it would have been obvious matters of design choice to one skilled in the art to add additional optical element that DOES NOT effect the function as wish.

With regard to claims 3-4 and 7-8, it is implicitly true that the polarizing eyeglasses could be moved leftwardly/rightwardly or forwardly/backwardly by the hands of the observer.

5. Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT publication of Rosencwaig as applied to claims 1 and 5 above, and further in view of the patent issued to Matsuda (PN. 4,989,967).

The polarizing eyeglasses utilized in a stereoscopic vision system taught by Rosencwaig as described for claims 1 and 5 above has met all the limitations of the claims. This reference however does not teach explicitly to use a pair of protective layers to cover the polarized light separation means and the polarization direction changing means. However it is very common knowledge in the art to use protective layer to cover the lenses of the eyeglasses as demonstrated by the teachings of Matsuda wherein a protective layer (1a, Figures 1b and 4) is used to coat the lens element. It would then have been obvious to one skilled in the art to use protective layers to coat the polarizing eyeglasses for the benefit of protecting it from environmental damages.

#### *Response to Arguments*

6. Applicant's arguments filed on November 22, 2004 have been fully considered but they are not persuasive.

7. In response to applicant's arguments concerning overcoming the rejection under 35 USC 112, second paragraph, which state that "the second polarization direction changing means adhered to a second face opposite to the first face of the polarized light separation means does serve a function even though it may not effect the polarized light passing through ... allow for compatibility of the eyeglass device with different types of stereoscopic image display apparatus" the examiner respectfully disagrees for the reasons stated below. **Firstly**, the function concerns "compatibility for different types of stereoscopic image display apparatus" is *not explicitly stated in the claims*, (it is not clear what ARE these different types of stereoscopic display apparatus as far as claims concern), which therefore cannot be relied upon to overcome the rejection. **Secondly**, as disclosed in the specification the **SAME** arrangement of first and second polarization direction changing means adhered to the two opposing face of the polarized light

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separation means **does not allow the compatibility** of the eyeglass device for **different types** of the stereoscopic display apparatus, (please see Figures 6-9). It is the **different arrangements** (so called service conditions A-D) for the first and second polarization directing changing means **in corresponding** to the **different types** of the stereoscopic image display apparatus (Figures 1-4), capable to provide the “*compatibility* of the eyeglass devices for different types of stereoscopic display”. The **claim language therefore at this juncture does not enable the compatibility**, since the claim language (as in claims 1 and 5) **ONLY** provides *one single* stereoscopic display apparatus and *one single arrangement* for the eyeglass device therefore **no function** concerning the “compatibility to different types of stereoscopic display” is possible.

**Furthermore**, as indicated in the figures of the instant application, it is **questionable** that a **full** image representing left eye or right eye (L and R) view can be viewed by each eye, completely. As shown in Figures 1-4, 10, 26, and 32-33 the images displayed on the display device are **horizontal** lines (L and R), the phase difference plate adhered to the face of the polarizing plate is also oriented in horizontal line, the L and R images after passing through the phase difference plate and the polarizing plate will have *orthogonally* polarized L and R **horizontal** image lines which will impinged upon **BOTH** viewing regions of the polarizing eyeglass device wherein polarization states of **part** of the L image and **part** of R image will rotated by the polarization direction changing means and consequently **part** of the L or R images will be *blocked off* by the eyeglass viewing regions when the polarization state of the parts of the images different from the polarization state of the polarizing separation means of the eyeglass device. This will allow only **part** of the L image be viewed by each eye. **The full viewing of the images will not be enabled.**

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8. In response to applicant's arguments which state that the "leftwardly", "rightwardly", "forwardly" and "backwardly" are referred to the different service conditions A-D of the eyeglass device. If such is the case, the applicant needs to explicitly state the particular *arrangement* of the first and second polarization direction changing means in each condition. The terms "leftwardly", "rightwardly", "forwardly" and "backwardly" certainly DO NOT clearly representing the intended arrangements.

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the different arrangements of first and second polarization direction changing means allow for compatibility of the eyeglass device with different types of stereoscopic image display apparatus) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



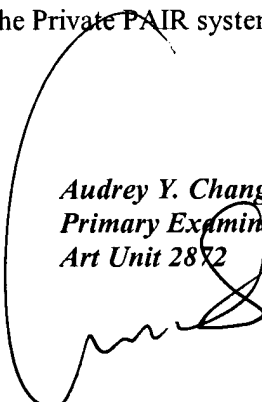
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 571-272-2309. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Audrey Y. Chang*  
*Primary Examiner*  
*Art Unit 2872*



A. Chang, Ph.D.